



Socio-Economic Benefits of Mid-band Spectrum

Sub-Saharan Africa (2020-2030)

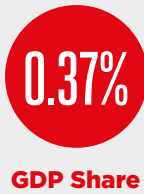
Mid-band spectrum is at the heart of 5G

and is necessary for the increases in bandwidth and capacity that numerous 5G applications will require. It will play a central role in meeting the city-wide capacity demand of 5G use cases from Manufacturing IoT to smart education and healthcare.



SSA GDP Impact in 2030

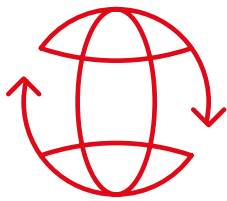
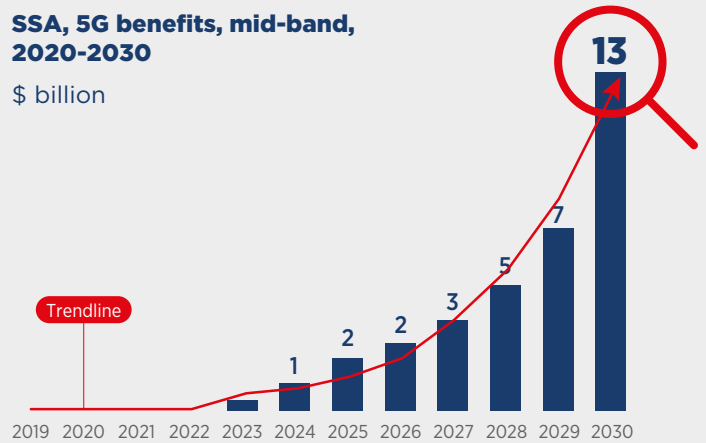
\$13bn



5G growth in the region is expected to develop rapidly in the second half of the decade and continue into the 2030s. The economic impact of mid-band 5G will be around 0.4% of GDP in 2030 – already higher as a percentage of GDP than in Europe and North America.

SSA, 5G benefits, mid-band, 2020-2030

\$ billion



0.95 GHz

Average mid-band capacity today in SSA

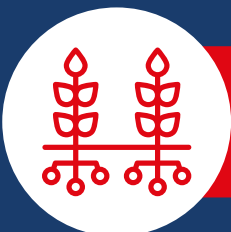
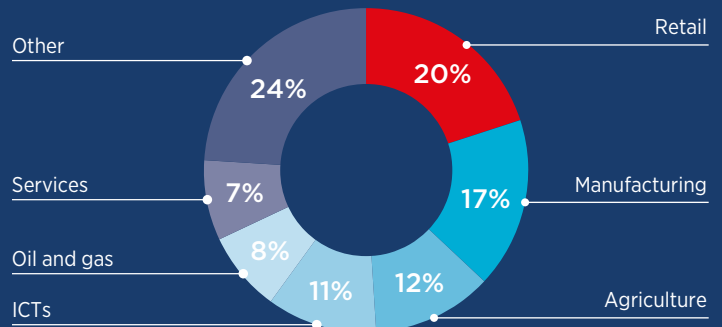


2 GHz

Global average mid-band spectrum need by 2025-2030

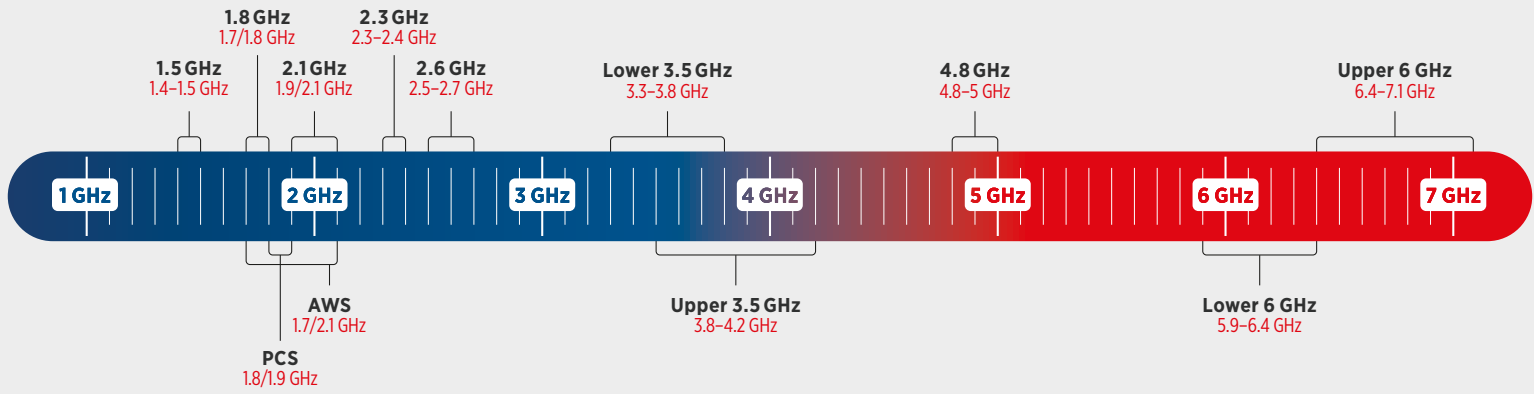
Vision 2030: Mid-Band Benefits by Sector in SSA

5G associated mid-band applications will mostly be used to benefit retail, manufacturing and agriculture in sub-Saharan Africa. While elsewhere manufacturing tends to dominate, the region's diverse economies will benefit across a range of sectors.



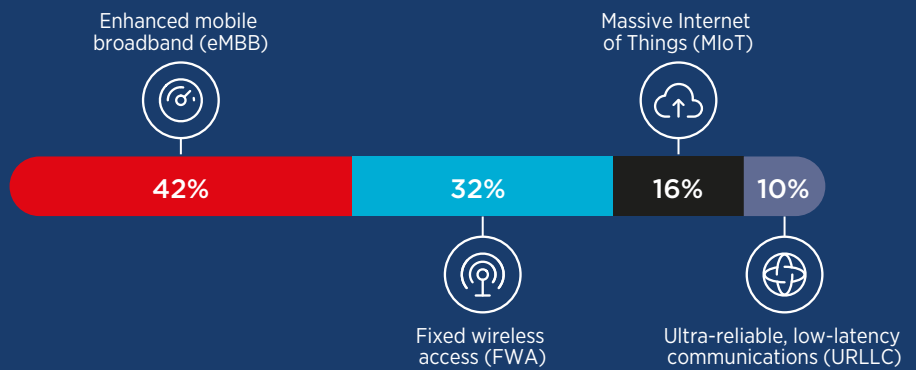
Countries in Sub-Saharan Africa, which typically have large agricultural elements to their economies, are expected to benefit greatly from a large set of applications in smart agriculture/smart monitoring which mid-band 5G is expected to enable.

Delivering 2 GHz of Mid-Band



Global Mid-Band Benefits by 5G Use Case

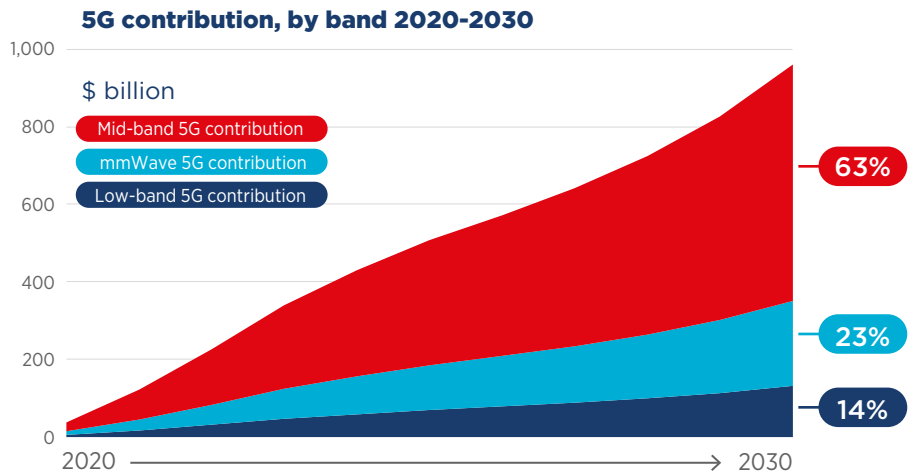
Mid-band will benefit all four main 5G use cases with its impact on each is expected to be stable in different parts of the world.



Global Breakdown: Mid-Band Drives 5G

5G is expected to yield \$960bn in additional GDP value add to the global economy - approximately 0.70% of forecast global GDP, in 2030.

The mid-band 5G contribution will represent \$610bn uplift to global GDP or 65% of total 5G benefits.



Economic Impact of Low Spectrum Assignment

5G relies on mid-band spectrum to realise its full potential. The global economy could lose up to 40% of the expected 5G benefits if no additional mid-band spectrum is allocated to mobile services. Global 5G benefits in 2030 could decrease from 0.68% of GDP (around \$960bn) to 0.42% of GDP (less than \$600bn) if spectrum is constrained.

